



Application No. 10/685,214		Applicant(s) LALLY, THOMAS JOSEPH	
Examiner Elizabeth D. Wood		Art Unit 1755	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

**Specification**

The examiner has not checked the specification to the extent necessary to determine the presence of **all** possible minor errors (grammatical, typographical and idiomatic). Cooperation of the applicant(s) is requested in correcting any errors of which applicant(s) may become aware of in the specification, in the claims and in any future amendment(s) that applicant(s) may file. ✓

Applicant(s) is also requested to complete the status of any copending applications referred to in the specification by their Attorney Docket Number or Application Serial Number, **if any**. ✓

The status of the parent application(s) and/or any other application(s) cross-referenced to this application, **if any**, should be updated in a timely manner. ✓

**Claim Rejections - 35 USC § 112**

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 6-8 and 13-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. ✓

These claims are indefinite in the recitation of "preferably". The use of preferably as set forth in the instant claims renders them indefinite because the scope of the claimed component is not clear.

**Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,149,368 to Liu et al.

It should be noted that for the examination of the instantly claimed invention, the examiner has read the claims in light of the specification and considers the metal phosphate and the tricalcium phosphate to be two distinct components, i.e. there must be three different components in the inventive composition.

The instantly claimed invention involves a refractory material containing metal phosphate, metal oxide or hydroxide and tricalcium phosphate. It should be noted that for the examination of the instantly claimed invention, the examiner has read the claims in light of the specification and considers the metal

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phosphate and the tricalcium phosphate to be two distinct components, i.e. there must be three different components in the inventive composition.

Liu et al. disclose a composition comprising a calcium phosphate such as tetracalcium phosphate together with tricalcium phosphate and additionally containing a filler material that can be magnesium oxide or hydroxide. This composition reads directly on the instantly claimed subject matter.

The Liu et al. disclosure can be considered to "differ" from the herein claimed invention in scope, i.e. Liu et al. disclose many other fillers not within the scope of the instant claims. However, the instant claims would have been obvious because it would have been within the skill of the practicing artisan to select one of the possibilities specifically disclosed by the reference, namely metal oxides and hydroxides. The motivation is provided by the prior art itself which clearly discloses functional species. See particularly column 2, lines 44-49 and column 4, second paragraph.



metal

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Any minor differences in the limitations of the dependent claims have been considered. This statement is meant to include limitations such as effective amounts or the presence of components such as setting retarders. These limitations are considered to have been within the skill of the artisan practicing in this field of technology because clearly the artisan will optimize effective performance by working within disclosed ranges or adding known components for known purposes to maximize the performance of the refractory at the minimum cost.



Furthermore, any such differences are deemed to be result-effective variables that one of ordinary skill in the art would be expected to manipulate to advantage. Additionally, such limitations can be considered to have been simply known as conventional to the artisan practicing in the art at the time the invention was made and/or were common practices which were so well known in the art that they would have been taken for granted. MPEP 706.02(a).

If applicant believes that one or more limitations are critical to the invention, then applicant should amend the claims to reflect such critical limitations as well as indicate where in the specification such critical limitations were discussed and demonstrated.

The limitations of all claims have been considered and are deemed to be within the purview of the prior art.

***Double Patenting***

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The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-20 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-16 of copending Application No. 10/338,425. Although the conflicting claims are not identical, they are not patentably distinct from each other because the copending claims represent a species of composition wherein the metal phosphate is potassium phosphate and the metal oxide is magnesium oxide. It is well established that claims to a genus as set forth in the instant application are always obvious over the claimed species.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 1-20 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-7 of U.S. Patent No. 6,533,821. Although the conflicting claims are not identical, they are

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not patentably distinct from each other because they differ from one another only in the scope of coverage being sought.

The patented claims recite a bio-adhesive that contains other components but also clearly sets forth a refractory component that is a species of the claimed refractory component genus. Accordingly, the patented claims describe a composition that fully embraces the refractory composition being claimed in the instant application.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

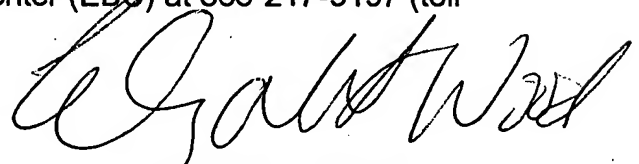
Applicants are advised that any evidence to be provided under 37 CFR 1.131 or 1.132 and any amendments to the claims and specification should be submitted prior to final rejection to be considered timely. It is anticipated that the next office action will be a final rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth D. Wood whose telephone number is 571-272-1377. The examiner can normally be reached on M-F, 5:30-2:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Bell can be reached on 571-272-1364. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Elizabeth D. Wood  
Primary Examiner  
Art Unit 1755

edw



<b>Notice of References Cited</b>	Application/Control No. 10/685,214	Applicant(s)/Patent Under Reexamination LALLY, THOMAS JOSEPH	
	Examiner Elizabeth D. Wood	Art Unit 1755	Page 1 of 1

**U.S. PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A	US-5,149,368	09-1992	Liu et al.	424/602
	B	US-5,709,742	01-1998	Fulmer et al.	106/690
	C	US-6,533,821	03-2003	Lally, Thomas	623/23.62
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

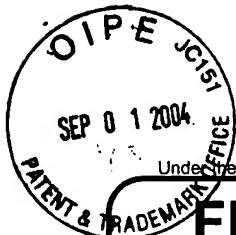
**FOREIGN PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

**NON-PATENT DOCUMENTS**

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

\*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)  
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.



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# FEE TRANSMITTAL for FY 2004

Effective 10/01/2003. Patent fees are subject to annual revision.

☒ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$)110.00

## Complete if Known

Application Number	10/885,214
Filing Date	10/14/2003
First Named Inventor	Lally
Examiner Name	Wood, Elizabeth
Art Unit	1755
Attorney Docket No.	CIP-03-001

## METHOD OF PAYMENT (check all that apply)

☐ Check ☒ Credit card ☐ Money Order ☐ Other ☐ None

☐ Deposit Account:

Deposit  
Account  
Number  
Deposit  
Account  
Name

The Director is authorized to: (check all that apply)

☒ Charge fee(s) indicated below ☒ Credit any overpayments

☒ Charge any additional fee(s) or any underpayment of fee(s)

☐ Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.

## FEE CALCULATION

### 1. BASIC FILING FEE

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1001	770	2001	385	Utility filing fee	
1002	340	2002	170	Design filing fee	
1003	530	2003	265	Plant filing fee	
1004	770	2004	385	Reissue filing fee	
1005	160	2005	80	Provisional filing fee	

SUBTOTAL (1) (\$)          

### 2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

	Extra Claims	Fee from below	Fee Paid
Total Claims	<u>          </u>	-20** = <u>          </u> X <u>          </u>	= <u>          </u>
Independent Claims	<u>          </u>	-3** = <u>          </u> X <u>          </u>	= <u>          </u>
Multiple Dependent	<u>          </u>	<u>          </u>	= <u>          </u>

Large Entity		Small Entity		Fee Description
Fee Code	Fee (\$)	Fee Code	Fee (\$)	
1202	18	2202	9	Claims in excess of 20
1201	86	2201	43	Independent claims in excess of 3
1203	290	2203	145	Multiple dependent claim, if not paid
1204	86	2204	43	** Reissue independent claims over original patent
1205	18	2205	9	** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) (\$)          

\*\*or number previously paid, if greater; For Reissues, see above

## FEE CALCULATION (continued)

### 3. ADDITIONAL FEES

Large Entity | Small Entity

Fee Code	Fee (\$)	Fee Code	Fee (\$)	Fee Description	Fee Paid
1051	130	2051	65	Surcharge - late filing fee or oath	
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet	
1053	130	1053	130	Non-English specification	
1812	2,520	1812	2,520	For filing a request for <i>ex parte</i> reexamination	
1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action	
1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action	
1251	110	2251	55	Extension for reply within first month	
1252	420	2252	210	Extension for reply within second month	
1253	950	2253	475	Extension for reply within third month	
1254	1,480	2254	740	Extension for reply within fourth month	
1255	2,010	2255	1,005	Extension for reply within fifth month	
1401	330	2401	165	Notice of Appeal	
1402	330	2402	165	Filing a brief in support of an appeal	
1403	290	2403	145	Request for oral hearing	
1451	1,510	1451	1,510	Petition to institute a public use proceeding	
1452	110	2452	55	Petition to revive - unavoidable	
1453	1,330	2453	665	Petition to revive - unintentional	
1501	1,330	2501	665	Utility issue fee (or reissue)	
1502	480	2502	240	Design issue fee	
1503	640	2503	320	Plant issue fee	
1460	130	1460	130	Petitions to the Commissioner	
1807	50	1807	50	Processing fee under 37 CFR 1.17(q)	
1806	180	1806	180	Submission of Information Disclosure Stmt	
8021	40	8021	40	Recording each patent assignment per property (times number of properties)	
1809	770	2809	385	Filing a submission after final rejection (37 CFR 1.129(a))	
1810	770	2810	385	For each additional invention to be examined (37 CFR 1.129(b))	
1801	770	2801	385	Request for Continued Examination (RCE)	
1802	900	1802	900	Request for expedited examination of a design application	

Other fee (specify) Terminal Disclaimer 2x65

\*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$)110

## SUBMITTED BY

Name (Print/Type)

Thomas S. Lally

Registration No.  
(Attorney/Agent)

(Complete if applicable)

Telephone

630-920-8679

Signature

*Thomas S. Lally*

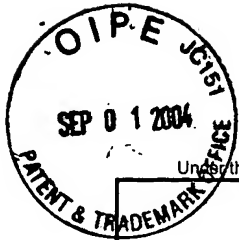
Date

9/1/04

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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on 9/1/04  
Date

  
Signature

Thomas Joseph Lally  
Typed or printed name of person signing Certificate

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- Fee Transmitted
- Credit Card Payment Form
- Terminal Disclaimer
- Terminal Disclaimer - Provisional

- Amendment in response to OA dated 6/17/2004
- Copy of OA.

This collection of information is required by 37 CFR 1.8. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.8 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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